

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2015-107 Date Opened: 05-Oct-15 Title: AssemblyAircraft OEM: Eurocopter Aircraft Model: AS350/355 Product Type: Cargo Basket Product Model: Ski Quantity: 1**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification
Time Sheet (R&D)
Notes

Initial or N/A

JR
N/A
JR
JR
N/A
JC
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
94010	1	Basket Assembly	JR
70405	4	Lid Walkway	JR
84261	2	Handle Assembly	JR

Traveller

Install walkway on lid
Install lid on basket body
Re-tap mounting lug holes and install mount lugs
Install handle brackets
Install handle
Install lid prop
Install data plate

Initial or N/A

JC
JC
JC
JC
JC
JC
JC

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

1
0
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

JC
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

Work performed by:

Print: Jeff Clarke for M. RekveSign: SCA: AD02Date: 05-Oct-15

ICC / Dual Inspection performed by:

Print: Jeff ClarkeSign: SCA: AD02Date: 05-Oct-15

Work Order closed by:

Print: Jeff ClarkeSign: SCA: AD02Date: 05-Oct-15

Approved Manufacturing Facility 73-04

Form 20.D.03

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:

1

PN:

Aluminum Checker plate

Aircraft:

All

Model: All

Description:

5 7/8" x 10', .065", pattern c102

Supplier:

Daigle Marine

Color:

N/A

WO#:

N/A

PO# 15056



WO# N/A

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013

CARGO BASKET ASSEMBLY - COMMON

Russian AS350 skf
SN 94001-50

General

These instructions apply to all cargo basket assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69810, Revision 3 – Standard Low Mounted Basket
94510, Revision 0 – Extra-Wide Low Mounted Basket
94610, Revision 0 – Extra-Wide Low Mounted Ski Basket
76610, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77610, Revision 1 – Short Basket
76410, Revision 3 – Medium Basket (left or right)
78410, Revision 2 – Long Basket
94010, Revision 0 – Extra Large (ski) Basket ←

Robinson R44 – left or right

90610, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80210, Revision 0 – Short Basket
80310, Revision 0 – Medium Basket
81110, Revision 0 – Long Basket

Bell 429 – right or left

95911, Revision 0 – Standard Basket

Bell Medium – left or right

75111, Revision 0 – Standard Basket
95511, Revision 0 – Extra Large (ski) Basket

MD600

82811, Revision 0 – Standard Basket

Options

70405, Revision 3? – Lid Walkway ←

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

Work Order: 2015-107

Date Open: Sept 28, 2015

ADOL

1. Lid Assembly

- a. Install lid bumpers on bottom.
 - i. Fill bumper holes with RTV silicone sealant.
 - ii. Insert 49205-14 lid bumper, 3 or 4 places per lid.
- b. Install placard on bracket on top of lid.
 - i. Locate placard on bracket.
 - ii. Drill #30 through placard and bracket, using holes in placard.
 - iii. Remove placard and de-burr holes in placard and on bracket.
 - iv. Locate placard on bracket, and cleco in place.
 - v. Rivet placard with four CR3213-4-02 CherryMax rivets.
- c. Option: Install walkway on top of lid (lid must be fitted with walkway provisions)
 - i. Note: avoid touching surface of tread plate with bare hands to prevent smudges or marks on the top surface.
 - ii. Pull tread plate from stock. Shear tread plate to length.
 - iii. De-burr edges of tread plate with scotch-brite disc on die-grinder.
 - iv. Locate tread plate on lid. Hold tread plate in place with bags of lead shot.
 - v. Mark and drill #30 holes:
 1. 0.25" from edge of tread plate, centre on cross members (0.38")
 2. 0.25" from edge of tread plate, middle of each walkway stringer
 - vi. De-burr and counter-bore (if required to provide clearance of rivet head on checker pattern) all holes in tread plate using 1/4" piloted counter bore on both sides.
 - vii. De-burr holes in lid tubes.
 - viii. Apply bead of RTV silicone sealant along all tubes under tread plate.
 - ix. Set tread plate in place, secure with clecos if necessary.
 - x. Rivet placard with CR3213-4-02 CherryMax rivets
- d. Record PO/WO of all parts (including lid) used in steps above on attached material tracking list.

2. Body Assembly

ADOL

- a. Install attachment fittings
 - i. Carefully remove excess powder coat from around attachment lug threads using a countersink.
 - ii. Run 3/8-24 tap into attachment lugs to clear threads.
 - iii. Apply anti-seize compound to attachment fittings 96710-01 (alternate: Ancra 40088-14)
 - iv. Install attachment fittings with two NAS1149F0363P washers in four lugs in basket.
 1. 90610 (Robinson R44) basket only:
 - a. Install 1 fitting 906?? in lower forward attachment lug only.
 - b. Install 3 96710-01 fittings in remaining locations.
 - v. Torque to ?? 13 FT LBS

- b. 946 Basket Only: Install Cutout Brace – *must be completed after hinge installation*
 - i. Locate 94621-01 Brace over aft cross tube cutout
 - ii. Install two AN4-6A bolts and two AN4-30A bolts with NAS1149F0463P washers.
 - iii. Torque AN4 bolts to ??
- c. Record PO/WO of all parts (including basket) used in steps above on attached material tracking list.

3. Hinge Installation

ABC

- a. Prepare hinge.
 - i. Cut hinge to length:
 - 1. 776, 906 – 54"
 - 2. 751, 803 – 70"
 - 3. 698, 764, 945 – 72"
 - 4. 784 – 90"
 - 5. 940, 946, 959 – 95" ←
 - ii. Drill #30 pilot holes using hinge jig. For long hinges, flip at specified location on jig.
- b. Install hinge on basket
 - i. Locate hinge on basket (standard baskets)
 - 1. centre fore/aft
 - 2. 0.15" – 0.18" up from bottom edge
 - ii. Locate hinge on basket (extra wide baskets)
 - 1. centre fore/aft
 - 2. set hinge at 90 degrees (as if lid would be installed) using a small square, locate vertical side at 22.5" from outboard edge.
 - iii. Drill #30 through holes in hinge into basket rim. Cleco in place with 1/8 (copper) clecos.
 - iv. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 (black) clecos.
 - v. Remove hinge and de-burr holes in hinge and basket rim.
 - vi. Cleco hinge to basket with 5/32 clecos.
 - vii. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations
- c. Install lid on basket
 - i. Locate lid on hinge (all baskets)
 - 1. center fore/aft
 - 2. 0.15" – 0.18" down from top edge
 - ii. Drill #30 through holes in hinge into lid rim. Cleco in place with 1/8 clecos.
 - iii. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 clecos.
 - iv. Remove hinge and de-burr holes in hinge and lid rim.
 - v. Cleco lid to hinge with 5/32 clecos.
 - vi. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations

- d. Record PO of hinge and rivets on attached material tracking list.

4. Install Handle AD06

- a. Install handle brackets.
- i. Set 84267-01 handle bracket on provisions in hoops, 2 places.
 - ii. Install AN3-11A bolt, NAS1149F0363P washer (2), MS21044N3 nut. Two places per bracket, two brackets per basket.
 - iii. Torque AN3 bolts to ?? 40 Inch LBS
- b. Install handle
- i. Trim 36278-01R and 36278-01L springs to ensure end of spring does not extend past edge of handle bracket, approximately 1/8". Set springs over bushing of 84261-01 handle assembly.
 - ii. Grease two 36275-01 bushings with ?? Insert into bushings of handle assembly.
 - iii. Locate handle on basket lid. Insert AN3-12A bolt with NAS1149F0363P through bracket on lid and handle bushing on one end of handle.
 - iv. On other end of handle, hook spring over catch rivet on handle assembly and use spring tool to twist spring to catch arm on bracket on lid while inserting AN3-12A bolt with NAS1149F0363P washer through lid bracket and handle bushing.
 - v. At first end, remove bolt and repeat step iv.
 - vi. Install NAS1149F0363P washer and MS21044N3 nut on both AN3-12A bolts.
 - vii. Torque AN3 bolts to ??
- c. Check handle
- i. Operate handle to ensure handle does not bind and springs hold handle in.
 - ii. Snap handle into brackets to ensure handle locks.
- d. Record PO/WO of all parts used in steps above on attached material tracking list.

5. Install lid brace AD06

- a. Locate 36280-01 lid brace on bushing in basket. Ensure brace is on forward end of basket as it will be installed on the helicopter.
- b. On lid end, insert AN970-3 washer into end of lid brace. Insert AN3-15A bolt with NAS1149F0363P washer through AN970-3 washer, lid prop, and lid bushing. Install NAS1149F0363P washer and MS21044N3 nut on bolt.
- c. On basket end, insert AN3-17A bolt with AN970-3 washer through lid prop and basket bushing. Install NAS1149F0363P washer and MS2144N3 nut on bolt.
- d. Ensure brace is seated on lip of bushings before tightening nuts.
- e. Torque AN3 bolts to ?? 40 Inch LBS
- f. Record PO/WO of all parts used in steps above on attached material tracking list.

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

AK

6. Final Inspection

Dual inspection by a different person than assembled the basket.

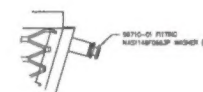
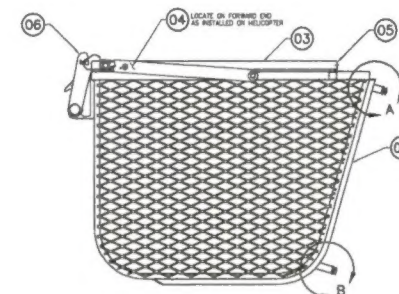
- a. Check for general condition and correct assembly:
 - i. Bolts are tight
 - ii. Rivets are installed correctly
 - iii. Handle operates correctly
 - iv. Lid brace operates correctly
- b. Check that PO/WO numbers have been recorded.

Draft

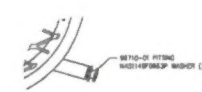
WO# _____

Rev. Original 27 May 2013

The technical drawings illustrate the LED-OUT-ARMY® system components and assembly. The top section shows two side views of the system, separated by a break line. The left side view is labeled 'INBOARD SIDE VIEW' and the right side view is labeled 'OUTBOARD SIDE VIEW'. Both side views show a series of rectangular panels with a diamond-shaped mesh pattern. The panels are connected by vertical and horizontal structural members. Callouts include: 'HOLE DRILL Ø12 (1/8") LATERAL CONNECTS WITHIN PANELS' (pointing to a small hole in the top rail), 'HOLE DRILL Ø12 (1/8") TYPICAL Ø 1/32" (pointing to a hole in the top rail)', and 'Ø6' (pointing to a hole in the top rail). The bottom section shows a 'BOTTOM VIEW' of the system, which is a long, narrow rectangular structure. It features a central break line. Callouts include: 'HOLE DRILL Ø12 (1/8") TYPICAL Ø 1/32" (pointing to a hole in the top rail)', 'LED-OUT-ARMY®' (pointing to the mesh panels), and 'Ø7' (pointing to a hole in the bottom rail). The bottom view also shows a 'HOLE DRILL Ø12 (1/8") LATERAL CONNECTS WITHIN PANELS' (pointing to a small hole in the top rail).

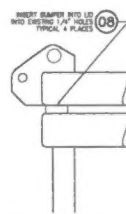


DETAIL A
SCALE 1 : 2
TYPICAL FRONT AND REAR



DETAIL B
SCALE 1 : 2
TYPICAL FRONT AND REAR

⑧40
10
21 CARGO BASKET ASSEMBLY - RH



BUMPER INSTALLATION

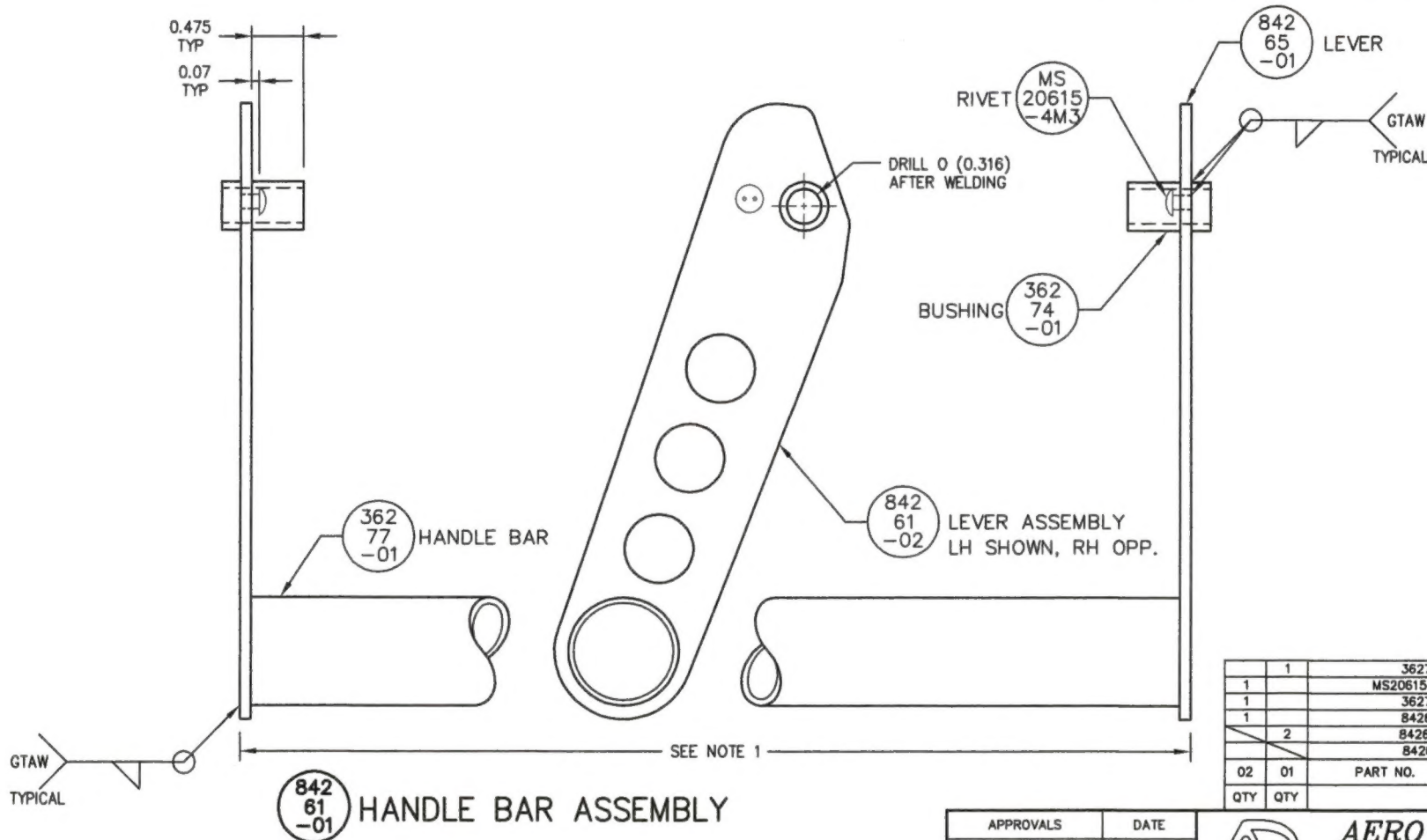


DETAIL C
SCALE 1 : 1
LOOKING AT PLACARD BRACKET

[illegible][illegible]

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	HANDLE END BRACKETS FLIPPED	BJC	SEPT 19/11
2	TITLE BLOCK UPDATED; LEVER ASSEMBLY ASSIGNED P/N	BJC	MAR 13/14



NOTES:

1. LENGTH OF HANDLE TO BE DETERMINED BY BASKET ASSEMBLY DRAWING.
2. REMOVE ALL BURRS AND SHARP EDGES.
3. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ER308L ROD.

QTY	QTY	PART NO.	DESCRIPTION
1	1	36277-01	HANDLE BAR
1		MS20615-4M3	RIVET (MONEL)
1		36274-01	BUSHING
1		84265-01	LEVER
2		84261-02	LEVER ASSEMBLY (RH/LH)
		84261-01	HANDLE BAR ASSY
02	01		
LIST OF MATERIALS			

APPROVALS	DATE
DRAWN: R. RATHWELL	JUNE 18/09
CHECKED: E. BURGAIN	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1

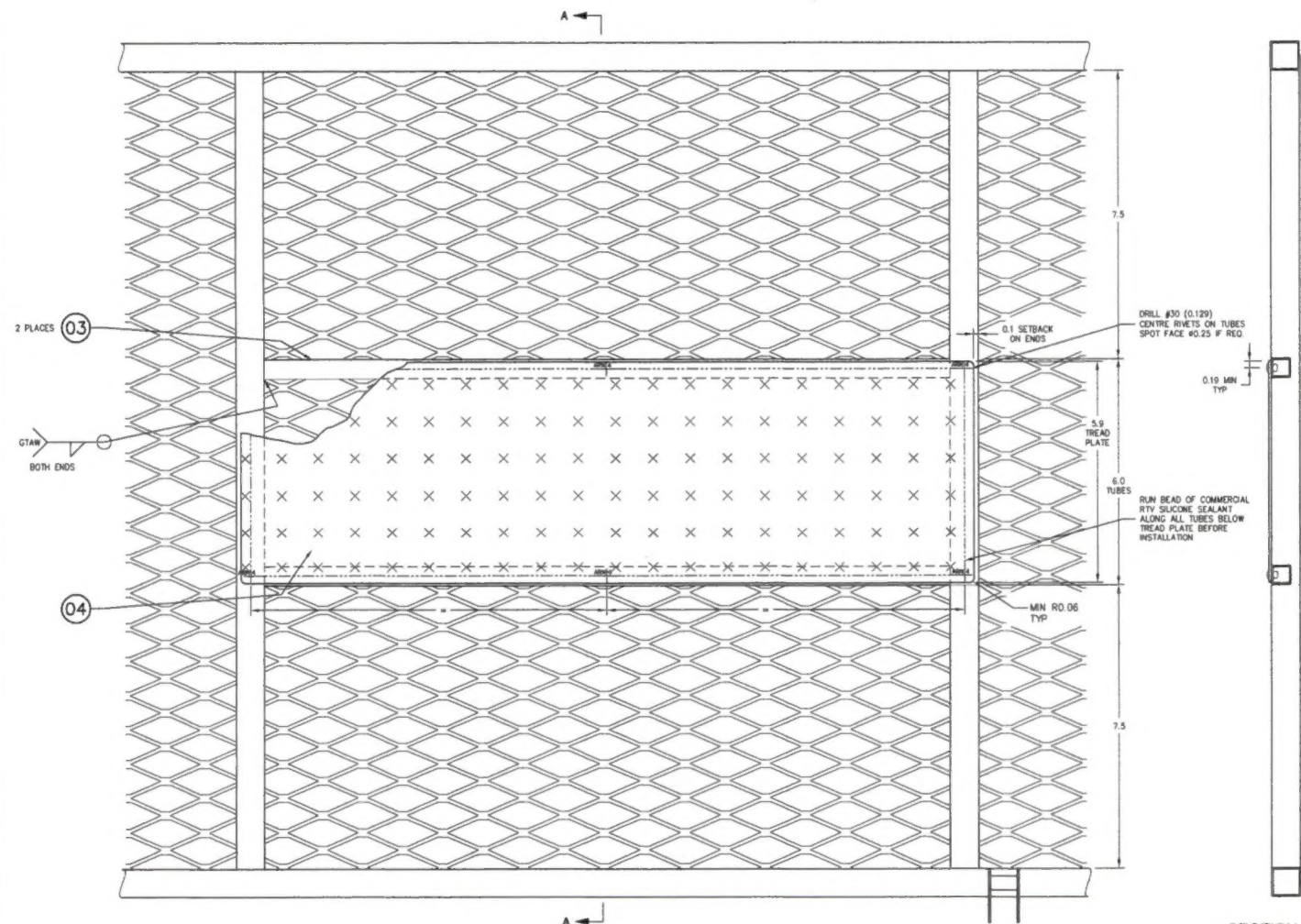


AERO DESIGN LTD.

9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 804.483.2376 www.aerodesign.ca

**HELICOPTER CARGO BASKET
HANDLE BAR ASSEMBLY**

SCALE	DWG. SIZE	DWG. NO.	REV.
SCALE 1 : 1	A3	84261	2
SHEET 1 OF 1			



01 BASKET LID ASSEMBLY

SECTION A-A

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL MEDIUM AND EUROCOPTER AS350 BASKETS, CHANGE TUBES	BUC	MAR 19/08
2	ADD EUROCOPTER EC135, MCDONNELL DOUGLAS MD600N, BELL 206B BASKETS	BUC	DEC 4/08
3	ADD NEW AS350 AND 206L/407 MODELS	BUC	DEC 4/08
4	TITLE BLOCK UPDATED; MODEL LIST REMOVED; ADD ALL REVET; ADD NOTE 7	BUC	28/05/2014

NOTES:


1. THIS DRAWING IS AN OPTIONAL CONFIGURATION ADDING A TREAD PLATE STEP TO THE LID. THIS CONFIGURATION MAY BE APPLIED TO ANY OR ALL BAYS OF THE LID. REMAINDER OF LID ASSEMBLY IS TO BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS.
2. TUBES (ITEM 03) MUST BE WELDED IN PLACE BEFORE MESH IS WELDED ON BOTTOM.
3. REMOVE ALL BURRS AND BREAK SHARP EDGES.
4. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
5. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
6. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY. INSTALL TREAD PLATE AFTER POWDER COATING.
7. WIDTH AND POSITION OF LID STEP MAY BE ADJUSTED TO MATCH LID DOOR INSTALLED IN ACCORDANCE WITH DRAWING 704022 ON ADJOINING BAY OF THE LID.

A/R	CR3213-4-02	BLIND RIVET	ALTERNATE: HR3213-4-02			
1	70405-04 04	TREAD PLATE	ALUMINUM	COMMERCIAL	0.063 TREAD PLATE	
2	70405-03 03	TUBE	4130 STEEL COND. N	MIL-T-6738	0.5 X 0.035 WALL TUBE	
1	SEE NOTE 1	02 BASKET LID ASSEMBLY				
1	70405-01 01	BASKET LID ASSEMBLY - MODIFIED WITH STEP				
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

BASIC CODE REF. NAS 523	DASH NO. FOR DIAMETER N=MFD. HEAD NEAR SIDE F=MFD. HEAD FAR SIDE	DASH NO. FOR LENGTH	APPROVALS DRAWN: JEFF CLARKE CHECKED: E. BURGIN	DATE 21 SEPT 2006
C=COUNTERSUNK D=DIMPLE DIGIT=# OF SHEETS TO BE DIMPLED	INSTALL NEW RIVET	REMOVE/REPLACE RIVET	EXISTING RIVET	
BASIC CODES: BJ=MS20470AD BB=MS20426AD ARN=CR3213 ARN=CR3212				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1				
AERO DESIGN LTD. 888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 854.463.2976 www.aerodesign.ca				
CARGO BASKET LID STEP MODIFICATION				
SCALE 1 : 1.5	DWG. SIZE A1	DWG. NO. 70405	REV. 4	SHEET 1 OF 1

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No.	
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO2015-107	
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work	
	Cargo Basket	94010-01	1	94001-50	New	
12. Remarks Modified with walkway on lid IAW DCL704						
13a. Certifies that the items identified above were manufactured in conformity to:				14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12		
<input checked="" type="checkbox"/> Approved design data and are in condition for safe operation.				Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
<input type="checkbox"/> Non approved design data specified in block 12.						
13b. Signature <i>Jeff Clarke</i>		13c. Approved Organization Number AMF 73-04		14b. Signature		14c. Approved Organization Number
13d. Name Jeff Clarke - AD02		13e. Date (dd/mm/yyyy) 05 Oct 2015		14d. Name		14e. Date (dd/mm/yyyy)
<p style="text-align: center;">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>						

WEST COAST

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No.	
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO2015-107	
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work	
	Cargo Basket	94010-01	1	94001-50	New	
12. Remarks Modified with walkway on lid IAW DCL704						
13a. Certifies that the items identified above were manufactured in conformity to:			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12.			
<input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.			
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature		14c. Approved Organization Number
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 05 Oct 2015		14d. Name		14e. Date (dd/mmm/yyyy)
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>						

ALTAI AIR RUSSIA